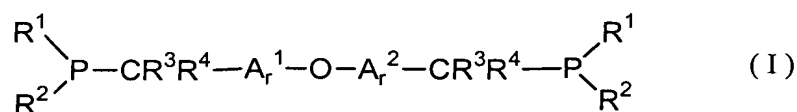


**Amendments to the Claims**

This listing of claims will replace all prior versions, and listing, of claims in the application.

**Listing of Claims**

Claim 1. (Currently Amended) A bisphosphine ~~having a crosslinking group and~~ represented by ~~the general~~ formula (I)



wherein Ar<sup>1</sup> and Ar<sup>2</sup> each represents an arylene group which ~~may be~~ is optionally substituted; R<sup>1</sup> and R<sup>2</sup> each represents an alkyl group which ~~may be~~ is optionally substituted or an aryl group which ~~may be~~ is optionally substituted, or R<sup>1</sup> and R<sup>2</sup> ~~may optionally~~ combinedly form a ring together with the phosphorus atom bonded thereto; R<sup>3</sup> and R<sup>4</sup> each represents hydrogen atom or an alkyl group; and the carbon atoms each having R<sup>3</sup> and R<sup>4</sup> are bonded in positions ortho to the oxygen atom bonded to Ar<sup>1</sup> and Ar<sup>2</sup>.

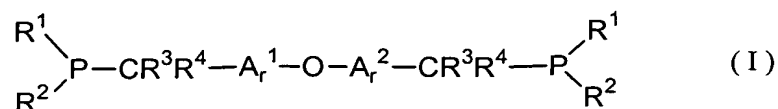
Claim 2. (Currently Amended) The bisphosphine according to Claim 1, wherein in ~~the general~~ formula (I) the arylene group represented by each of Ar<sup>1</sup> and Ar<sup>2</sup> is phenylene, the aryl group that ~~may be~~ is represented by each of R<sup>1</sup> and R<sup>2</sup> is phenyl, and R<sup>3</sup> and R<sup>4</sup> each represents a hydrogen atom.

Claim 3. (Currently Amended) The bisphosphine according to Claim 1, ~~being~~ which ~~is 2,2'-(bis(diphenylphosphinomethyl)diphenyl ether, 2,2'-(bis(diphenylphosphinomethyl)-6-methoxy-diphenyl ether 2,2'-bis(diphenylphosphinomethyl)diphenyl ether, 2,2'-~~

bis(diphenylphosphinomethyl)-6-methoxy-diphenyl ether, or 2,2'-

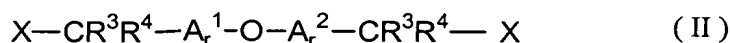
bis(diphenylphosphinomethyl)-4-t-butyl-diphenyl ether.

Claim 4. (Currently Amended) A process for producing bisphosphines ~~having a crosslinking group and~~ represented by ~~the general~~ formula (I)

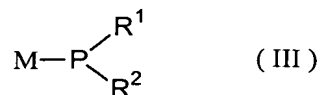


wherein  $\text{Ar}^1$  and  $\text{Ar}^2$  each represents an arylene group which ~~may be~~ is optionally substituted;  $\text{R}^1$  and  $\text{R}^2$  each represents an alkyl group which ~~may be~~ is optionally substituted or an aryl group which may be substituted, or  $\text{R}^1$  and  $\text{R}^2$  may combinedly form a ring together with the phosphorus atom bonded thereto;  $\text{R}^3$  and  $\text{R}^4$  each represents hydrogen atom or an alkyl group; and the carbon atoms each having  $\text{R}^3$  and  $\text{R}^4$  are bonded in positions ortho to the oxygen atom bonded to  $\text{Ar}^1$  and  $\text{Ar}^2$ , which comprises:

subjecting a compound represented by ~~the general~~ formula (II)



wherein  $\text{Ar}^1$ ,  $\text{Ar}^2$ ,  $\text{R}^3$  and  $\text{R}^4$  are as defined above, and X represents an arylsulfonyloxy group, alkylsulfonyloxy group or a halogen atom[[:]] to phosphorylation with an alkali metal phosphide represented by ~~the general~~ formula (III)



wherein  $\text{R}^1$  and  $\text{R}^2$  are as defined above, M represents a lithium atom, a sodium atom or a potassium atom.

Claim 5. (Currently Amended) The process according to Claim 4, wherein in ~~the general~~ formula (I) the arylene group represented by each of  $\text{Ar}^1$  and  $\text{Ar}^2$  is phenylene, the

aryl group that ~~may be~~ is optionally represented by each of R<sup>1</sup> and R<sup>2</sup> is phenyl, and R<sup>3</sup> and R<sup>4</sup> each represents a hydrogen atom.

Claim 6. (Original) The process according to Claim 4, wherein said phosphorization is carried out in the presence of an ether-based solvent.

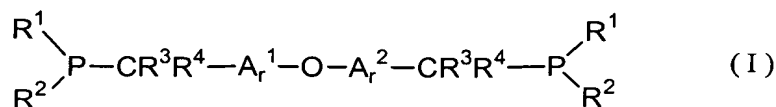
Claim 7. (Original) The process according to Claim 6, wherein said ether-based solvent is selected from the group consisting of 1,4-dioxane, dibutyl ether, 2-ethoxyethyl ether, diethyleneglycol dimethyl ether, tetrahydrofuran and diethyl ether.

Claim 8. (Original) The process according to Claim 6, wherein said solvent comprises a mixed solvent comprising tetrahydrofuran and dibutyl ether.

Claim 9. (Currently Amended) The process according to Claim 4, wherein said alkali metal phosphide is used in an amount ranging from 2 to 4 moles per mole of said compound represented by ~~the general~~ formula (II).

Claim 10. (Currently Amended) The process according to Claim 9, wherein said alkali metal phosphide is used in an amount ranging from 2 to 2.2 moles per mole of said compound represented by ~~the general~~ formula (II).

Claim 11. (Currently Amended) A Group VIII metal complex, comprising:  
a bisphosphine ~~having a crosslinking group and~~ represented by ~~the general~~ formula (I)



wherein Ar<sup>1</sup> and Ar<sup>2</sup> each represents an arylene group which ~~may be~~ is optionally substituted;  
R<sup>1</sup> and R<sup>2</sup> each represents an alkyl group which ~~may be~~ is optionally substituted or an aryl  
group which may be substituted, or R<sup>1</sup> and R<sup>2</sup> ~~may~~ combinedly form a ring together with the  
phosphorus atom bonded thereto; R<sup>3</sup> and R<sup>4</sup> each represents hydrogen atom or an alkyl group;  
and the carbon atoms each having R<sup>3</sup> and R<sup>4</sup> are bonded in positions ortho to the oxygen  
atom bonded to Ar<sup>1</sup> and Ar<sup>2</sup>, and a Group VIII metal compound.

Claim 12. (Currently Amended) The Group VIII metal complex according to Claim  
11, wherein in the formula the arylene group represented by each of Ar<sup>1</sup> and Ar<sup>2</sup> is  
phenylene, the aryl group that ~~may be~~ is represented by each of R<sup>1</sup> and R<sup>2</sup> is phenyl, and R<sup>3</sup>  
and R<sup>4</sup> each represents hydrogen atom.

Claim 13. (Original) The Group VIII metal complex according to Claim 11, wherein  
said Group VIII metal compound is a rhodium compound, cobalt compound, ruthenium  
compound or iron compound having catalytic activity for hydroformylation.

Claim 14. (Original) The Group VIII metal complex according to Claim 13, wherein  
said Group VIII metal compound is a rhodium compound selected from the group consisting  
of RhO, RhO<sub>2</sub>, Rh<sub>2</sub>O, Rh<sub>2</sub>O<sub>3</sub>, rhodium nitrate, rhodium sulfate, rhodium chloride, rhodium  
iodide, rhodium acetate, Rh(acac)(CO)<sub>2</sub>, RhCl(CO)(PPh<sub>3</sub>)<sub>2</sub>, RhCl(CO)(AsPh<sub>3</sub>)<sub>2</sub>, RhCl(PPh<sub>3</sub>)<sub>3</sub>,  
RhBr(CO)(PPh<sub>3</sub>)<sub>2</sub>, Rh<sub>4</sub>(CO)<sub>12</sub> and Rh<sub>6</sub>(CO)<sub>16</sub>.

Claim 15. (Original) The Group VIII metal complex according to Claim 14, wherein  
said Group VIII metal compound is Rh(acac)(CO)<sub>2</sub>.

Claim 16. (Currently Amended) The Group VIII metal complex according to Claim 11, wherein the amount of said bisphosphine used is in a the range of 2 to 10000 moles in terms of phosphorus atom per mole of said Group VIII metal compound in terms of Group VIII metal atom.

Claim 17. (Currently Amended) The Group VIII metal complex according to Claim 16, wherein the amount of said bisphosphine used is in a the range of 2 to 1000 moles in terms of phosphorus atom per mole of said Group VIII metal compound in terms of Group VIII metal atom.

Claim 18. (Currently Amended) A process for producing aldehydes, which comprises[[],]:

~~on hydroformylation of~~ hydroformylating ethylenically unsaturated compounds with carbon monoxide and hydrogen in the presence of a catalyst of a Group VIII metal complex as defined in Claim 11 to produce the corresponding aldehydes[[],]. ~~using as said catalyst the Group VIII metal complex according to Claim 11.~~

Claim 19. (Currently Amended) The process according to Claim 18, wherein a mixed gas comprising carbon monoxide and hydrogen having a H<sub>2</sub>/CO molar ratio ~~as feed gas composition of~~ 0.1 to 10 is ~~used~~ fed into the reaction.

Claim 20. (Currently Amended) The process according to Claim 19, wherein a said mixed gas comprising carbon monoxide and hydrogen has a H<sub>2</sub>/CO molar ratio of 0.5 to 2.

Claim 21. (Currently Amended) The process according to Claim 18, wherein the reaction is conducted under a pressure is in a the range of 0.1 to 10 MPa.

Claim 22. (Currently Amended) The process according to Claim 21, wherein the reaction pressure is in a the range of 0.2 to 5 MPa.

Claim 23. (Currently Amended) The process according to Claim 18, wherein the reaction temperature is in a the range of 40 to 150° C.

Claim 24. (Currently Amended) The process according to Claim 23, wherein the reaction temperature is in a the range of 60 to 130° C.

Claim 25. (Currently Amended) The process according to Claim 18, wherein the amount of said Group VIII metal complex is in a the range of 0.0001 to 1000 milligram-atom in terms of the Group VIII metal atom per liter of the reaction liquid.

Claim 26. (Currently Amended) The process according to Claim 25, wherein the amount of said Group VIII metal complex is in a the range of 0.005 to 10 milligram-atom in terms of the Group VIII metal atom per liter of the reaction liquid.